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EXAMINER	
CHUNG, DANIEL J	
ART UNIT	**PAPER NUMBER**
2672	12

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/631,312	KRUSE ET AL.	
	Examiner	Art Unit	
	Daniel J Chung	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12,14-37 and 39-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-12,14-37 and 39-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claims 1,3-12,14-37 and 39-63 are presented for examination. Claims 13,38 and 64 has been canceled by the amendment filed on 11-17-2003. This office action is in response to the amendment filed on 11-17-2003.

Drawings

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,3-12,14-37 and 39-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilliard et al (USPAP, US 2002/0080168) in view of Edge (6,027,201).

Regarding claim 1, Hilliard et al discloses that the claimed feature of a method comprising: obtaining information ["the color display characteristic of display"] characterizing the color response of a display device associated with a client residing on

a computer network by guiding the client through a color profiling process that profiles the color response of the display device, wherein the color profiling process includes estimating the gray balance of the display device (See Fig 3A-3B, [41-42], [84-109]); modifying a color image based on the information to improve the accuracy of the color image when displayed on the display device; and delivering the modified color image ["color corrected image"] to the client via the computer network for display on the display device. (See Abstract, Fig 1-8, Fig 20-21, [38]-[42], [61]-[62], [116]-[118], [126]-[128], [133]-[136])

Hilliard et al does not explicitly disclose that "the color profiling process includes estimating the gray balance of the display device." However, such limitation ["gray balance" in the color profiling process] is shown in the teaching of Edge. (See Fig 2, Fig 3, col 3 line 31-col 4 line 61, col 10 line 20-24, col 15 line 63-col 16 line 10, col 17 line 32-67, col 18 line 61-66) It would have been obvious to one skilled in the art to incorporate the teaching of Edge into the teaching of Hilliard et al, in order to effectively achieve desired output color rendition even with the imaging device in un-calibrated condition, as such improvement is also advantageously desirable in the teaching of Hilliard et al for producing proper color calibrated images, modified color profile data and color corrected images to a user when the user's computer and its associated devices are not calibrated and/or characterized, or the calibration and/or characterization data is not available, thereby providing completely accurate color correction to a user over a network. (See Abstract in Hilliard) Furthermore, having a

gray balancing step in the color profiling process is commonly well-known in an analogous art in order to render accurate colored images.

Regarding claim 3, Hilliard et al discloses that guiding the client through the color profiling process by delivering a series of instructional web pages to the client. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 4, Hilliard et al discloses that the color profiling process includes estimating a gamma for the color response of the display device. (See [113]-[114], [151]-[155])

Regarding claim 5, Hilliard et al discloses that the color profiling process includes estimating a gamma for the color response of each of the red, green and blue color channels associated with the display device. (See [113]-[114], [151]-[155], [174])

Regarding claims 6-7, Hilliard et al discloses that the color profiling process includes: estimating the black point of the display device; estimating a coarse gamma for the display device; estimating a fine gamma for the display device based in part on the coarse gamma; and generating a color profile based on the black point, the coarse gamma, the fine gamma, and the gray balance. (See [113]-[114], [151]-[155]) Although Hilliard et al does not discloses two groups of gamma [i.e. the coarse gamma, the fine gamma] for the display device, in an analogous art, separating the gamma or any other

color parameters into two different groups based on the level of accuracy [i.e. coarse, fine], thereby having higher or fine color parameters [i.e. gamma] is well known in the art to one of ordinary skilled in the art, in order to provide more ensured output images to user. (See "fine tune device" in Edge)

Regarding claim 8, Hilliard et al further discloses that estimating the black point of the display device includes: displaying a first range of gray elements on the display device; setting the contrast of the display device to maximum; setting the brightness of the display device to maximum; reducing the brightness of the display device until the darkest of the gray elements is barely visible; selecting the gray element that is barely visible. (See [165], [181]-[186]; Also See Fig 1-5 of Engeldrum et al (U.S 5,638,117), which incorporated within the teaching of Hilliard)

Regarding claims 9-12, Hilliard et al discloses similar feature. (See [186]-[187]; Also See Fig 1-5 of Engeldrum et al (U.S 5,638,117), which incorporated within the teaching of Hilliard) ["one possibility is to display three, 25%, 50% and 75% halftone screens for each of the display colors, red, green, and blue with a number of continuous tone areas immersed in the halftone background"]

Regarding claim 14, Hilliard et al discloses that guiding the client through the color profiling process by delivering a series of instructional web pages to the client; obtaining the information by generating a web cookie based on results of the color

profiling process; and transmitting the web cookie to a remote server in the computer network. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 15, Hilliard et al discloses that the remote server modifies the color image based on the information. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 16, Hilliard et al discloses that the remote server delivers the modified color image to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 17, Hilliard et al discloses that transmitting the information to a remote server in the computer network, the remote server modifying the color images based on the information. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 18, Hilliard et al discloses that transmitting the information to a plurality of remote servers in the computer network, and modifying a plurality of color images based on the information, wherein each of the remote servers modifies and delivers at least one of the color images to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 19, Hilliard et al discloses that obtaining the information by obtaining information characterizing the color responses of a plurality of display devices

associated with a plurality of clients residing on the computer network. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 20, Hilliard et al discloses that the color image forms part of content received by the client from a remote server. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 21, Hilliard et al discloses that the computer network is the World Wide Web, and the color image forms part of a web page received by the client from a web server residing on the computer network. (See [117]-[118], [125]-[128], [133], [136])

Regarding claim 22, Hilliard et al discloses that the color image includes a plurality of color images stored on image servers residing on the computer network, and the color images form parts of web pages received by the client from web servers residing on the computer network, the image servers and web servers being distinct from one another. (See Fig 1, Fig 3, Fig 11)

Regarding claim 23, Hilliard et al discloses that modifying the color images before the delivery of the color images to the client. (See [34], [39], [53], [61]-[65], [128]-[136])

Regarding claim 24, Hilliard et al discloses that transmitting a web page from a web server to the client, wherein the web page includes an image tag identifying the color image on a color image server residing on the computer network; transmitting the information as part of a web cookie to the color image server, wherein the color image server modifies the color image based on the information; and transmitting the color image from the color image server to the client. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 25, Hilliard et al discloses that transmitting a first web page from a color profile server to the client, the web page guiding the client through a color profiling process to obtain the information; transmitting a second web page from a web server to the client, wherein the web page includes an image tag identifying the color image on a color image server residing on the network; transmitting the information as part of a web cookie to the color image server, wherein the color image server modifies the color image based on the information; and transmitting the color image from color image serve to the client. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 26, refer to the discussion for the claim 1 hereinabove, Hilliard et al discloses that the claimed feature of a system comprising: a web server residing on a computer network, the web server transmitting web pages to remote clients residing on the computer network; a color image server residing on the computer network, the

color image server transmitting color images referenced by the web pages to the clients for display on display devices associated with the clients; a color profile server residing on the computer network, the color profile server guiding the clients through a color profiling process to obtain information characterizing the color responses of the display devices associated with the clients, wherein the color profiling process includes estimating the gray balance of the display device; and one ore more color correction modules that modify the color images transmitted by the color image server based on the information to improve the accuracy of the color images when displayed on the respective display device. (See Abstract, Fig 1-8, Fig 20-21, [38]-[42], [61]-[62], [116]-[118], [126]-[128], [133]-[136])

Regarding claim 27, Hilliard et al discloses that the one or more color correction modules include a plurality of color correction modules, each of the color correction modules being resident with one of the color image servers on the network. (See Abstract, Fig 1-8, Fig 20-21)

Regarding claims 28-37, claims 28-37 are similar in scope to the claims 3-12, and thus the rejections to claims 3-12 hereinabove are also applicable to claims 28-37.

Regarding claims 39-43, claims 39-43 are similar in scope to the claims 14-17,21 and 27, and thus the rejections to claims 14-17,21 and 27 hereinabove are also applicable to claims 39-43.

Regarding claim 44, claim 44 is similar in scope to the claim 1, and thus the rejection to claim 1 hereinabove is also applicable to claim 44.

Regarding claim 45, Hilliard et al discloses that obtaining the information by guiding the client through a color profiling process that profiles the color response of the display device, the color profiling process including delivery of a series of interactive, instructional pages to the client, wherein completion of the color profiling process requires no more than four clicks with a pointing device operated by a user associated with the client. (See [42], [210])

Regarding claim 46, Hilliard et al discloses that the cookie includes a profiler cookie written to the client by a first server that obtains the information, and a subscriber cookie written to the client by a color image server that delivers the modified color image. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claim 47, Hilliard et al discloses that transferring at least some of the contents of the profiler cookie to the color image server, whereby the color image server writes the subscriber cookie to the client, the subscriber cookie being thereafter transferred to the color image server when the client requests delivery of images from the color image server. (See [53]-[56], [64]-[65], [73], [117]-[118], [125]-[128], [133], [136])

Regarding claims 48-51, claims 48-51 are similar in scope to the claims 26 and 45-47, and thus the rejections to claims 26 and 45-47 hereinabove are also applicable to claims 48-51.

Regarding claims 52-56, claims 52-56 are similar in scope to the claims 7-11, and thus the rejections to claims 7-11 hereinabove are also applicable to claims 52-56.

Regarding claims 57-58, Hilliard et al discloses that the fourth/third range of gray elements is represented centrally within as a two-dimensional array of the gray elements. (See [113]-[114], [151]-[155])

Regarding claim 59, Hilliard et al discloses that using the coarse gamma as a starting point for estimating the fine gamma, and using the fine gamma as a starting point for estimating the gray balance. (See [113]-[114], [151]-[155], [186]-[187])

Regarding claims 60 and 62, claims 60 and 62 are similar in scope to the claim 1, and thus the rejection to claim 1 hereinabove is also applicable to claims 60 and 62.

Regarding claim 61, Hilliard et al discloses that the program code is contained both in physical data storage media and signals transmitted between the client computer and other resource on the computer network. (See Fig 1, Fig 3-5, Fig 11)

Regarding claim 63, claim 63 is similar in scope to the claim 61, and thus the rejection to claim 61 hereinabove is also applicable to claim 63.

Response to Arguments/Amendments

Applicant's arguments with respect to claims 1 and 3-64 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

djc
January 27, 2004

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600